

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. 2002-NM-39-AD; Amendment 39-13726; AD 2004-14-17]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Model A300 B4-600, B4-600R, and F4-600R (Collectively Called A300-600) Series Airplanes; and Model A310 Series Airplanes; Equipped With Pratt & Whitney JT9D-7R4 or 4000 Series Engines**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

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**SUMMARY:** This amendment supersedes an existing airworthiness directive (AD), applicable to certain Airbus Model A300-600 and A310 series airplanes, that currently requires deactivating both thrust reversers and revising the airplane flight manual (AFM) to ensure safe and appropriate performance during certain takeoff conditions. This amendment requires installing modifications that will add an independent third line of defense on the thrust reversers, which would enhance their redundancy and terminate the requirements of the existing AD. The actions specified by this AD are intended to prevent in-flight deployment of the thrust reversers, which could result in reduced controllability of the airplane. This action is intended to address the identified unsafe condition.

**DATES:** Effective August 17, 2004.

The incorporation by reference of certain publications, as listed in the regulations, is approved by the Director of the Federal Register as of August 17, 2004.

The incorporation by reference of certain other publications, as listed in the regulations, was approved previously by the Director of the Federal Register as of December 28, 1998 (63 FR 70637, December 22, 1998).

**ADDRESSES:** The service information referenced in this AD may be obtained from Airbus, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

**FOR FURTHER INFORMATION CONTACT:** Tim Backman, Aerospace Engineer, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2797; fax (425) 227-1149.

**SUPPLEMENTARY INFORMATION:** A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 98-25-51, amendment 39-10952 (63 FR 70637, December 22, 1998), which is applicable to certain Airbus Model A300-600 and A310 series airplanes, was published in the Federal Register on April 14, 2003 (68 FR 17893). The action proposed to require deactivating both thrust reversers and revising the airplane flight manual (AFM) to ensure safe and appropriate performance during certain takeoff conditions.

## **Comments**

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

## **Support for Proposed AD**

One commenter supports the AD as proposed. Air Transport Association (ATA) reports that its members generally support the intent of the rulemaking.

## **Request To Extend Compliance Time**

One commenter, an operator, is concerned that the proposed 1-year compliance time would result in grounded airplanes, and requests that the compliance time be extended from 12 months to 3 years. The operator reports that no thrust reversers have deployed in flight, uncommanded, on its affected airplanes. The operator notes that all of its PW4000-powered A310/A300-600 airplanes and engine spares have been modified, but hardware changes were often needed for configuration compatibility. Further, because the modification was done during the 180-day passenger-to-freighter conversion process, the hardware changes were handled within the scheduled time with no unscheduled downtime. However, unlike its PW4000-powered fleet, the operator states that all of its PW JT9D-7R4-powered airplanes are in operational service and are to be modified during a shorter maintenance visit. The operator concludes that a 3-year compliance time for the modification would minimize the economic impact on operators without compromising safety, since the repetitive inspections required by AD 98-25-51 would still be in force until the modification is done.

We partially agree with the request. We have previously issued an alternative method of compliance (AMOC) for the requirements of AD 98-25-51. The AMOC, based on a method developed cooperatively between the airframe and engine manufacturers, allows the thrust reversers to be reactivated in accordance with an FAA-approved program of parts replacement and repetitive inspections. However, because of the severe consequences associated with an in-flight thrust reverser deployment, we cannot increase the compliance time to 3 years, as the operator requests. Nonetheless, to avoid airplanes being grounded until the modification can be done, we agree to extend the compliance time for the modification from 1 year to 18 months. We have determined that this extension will not adversely affect safety. Paragraph (c) of this final rule has been changed accordingly. We have advised the Direction Générale de l'Aviation Civile (DGAC), which is the airworthiness authority for France, of this change.

## **Request To Ensure Compliance Time After a Certain Date**

One commenter, the manufacturer, considers the proposed compliance time appropriate, but requests a deadline not earlier than June 30, 2004, to correspond to the compliance time mandated by French airworthiness directive 2001-523(B), dated October 31, 2001. In light of the compliance time discussion above, the new compliance time for this AD will not take effect until after June 30, 2004.

## **Request To Refer to AOTs**

One commenter, the manufacturer, states that Airbus All Operators Telex (AOT) 78-09 (currently at Revision 3, dated June 29, 1999) has been considered as an approved AMOC for the requirements of AD 98-25-51 to allow the thrust reversers to be reactivated. The manufacturer notes that the proposed AD does not refer to Airbus AOT 78-09, or to AOT 78-10, which is referenced in AOT 78-09 and provides details for an exhaustive check of the thrust reverser electrical circuit as part of the reactivation control program/reinforcement against power supply loss. We infer that the manufacturer requests that we revise the proposed AD to refer to these AOTs and give credit for paragraphs (a) and (b) of the proposed AD for airplanes on which the actions specified in AOT 78-09 have been done.

We partially agree with the request; however, the actions specified in AOT 78-09 alone are insufficient to address the unsafe condition. We approved the AMOC to AD 98-25-51 to allow reactivation of the thrust reversers in accordance with Revision 3 of Airbus AOT 78-09, but the AOT does not contain all the AMOC requirements. The referenced AMOC involves certain tests, checks, maintenance actions, and parts changes to each individual thrust reverser. The AMOC is conditional on a stow-latching minimum-force check being done after the serialized selector solenoid valve is installed. That check is not specified in the AOT. We agree that most of the thrust reverser reactivation program is defined in Airbus AOT 78-09, Revision 3; however, additional actions are included in the complete AMOC, so the accomplishment of the AOT actions alone cannot be considered an approved AMOC to this AD. In addition, the reference to AOT 78-10—through AOT 78-09—is sufficient for purposes of this AD. However, we have added a new Note 3 in this final rule to clarify the purpose of the AMOC and its relationship to the AOT, and reidentified subsequent notes.

## **Request To Revise Description of Unsafe Condition**

One commenter, the manufacturer, finds that the term "unsafe condition" is inappropriately used in the preamble to the proposed AD. The manufacturer takes exception to the characterization of the modification as being necessary to address the unsafe condition. The manufacturer asserts that the reactivation program restores the level of safety required to satisfy the original design requirements for the thrust reverser system, and adds that the modification was developed to add a supplementary level of protection against inadvertent deployment of the thrust reversers.

We do not agree that the term "unsafe condition" is inappropriate as it is used in the proposed AD. The requirements of AD 98-25-51 (deactivating both thrust reversers and revising the airplane flight manual) are intended to prevent in-flight deployment of the thrust reversers and consequent reduced controllability of the airplane. The subsequently issued AMOC (discussed previously) was intended as an interim action only. Although we recognize the improved reliability provided to the thrust reverser system by the reactivation program, we have determined that the basic two-line-of-defense architecture does not adequately address the system's vulnerability to damage and long-term maintainability. Therefore, the modification is necessary to prevent the identified unsafe condition. No change to the final rule is necessary regarding this issue.

## **Request To Revise Estimated Costs**

Airbus reports that the estimated costs associated with the proposed modification have been revised. We have revised the Cost Impact section accordingly in this final rule.

## **Request To Include Certain Parts Costs**

One commenter, an operator, states that the proposed AD understates the estimated costs associated with the modification because certain parts specified in Pratt & Whitney Service Bulletins PW7R4 A78-179 and JT9D-7R4-A73-80 were not considered. The operator asserts that the proposed AD accounts only for the labor hours, not the parts costs, associated with the actions specified in those service bulletins. The commenter provides its actual costs incurred to modify one of its airplanes, and compares those costs to the cost estimates of the proposed AD.

We agree that the parts costs may be underestimated in the proposed AD. While the commenter's total parts cost was \$114,622 with Pratt & Whitney Service Bulletin PW7R4A78-179 included, we estimate that the parts costs could be as high as \$120,000, depending on the airplane configuration. We have revised the Cost Impact section accordingly in this final rule.

## **Conclusion**

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes previously described. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

## **Changes to 14 CFR Part 39/Effect on the AD**

On July 10, 2002, the FAA issued a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's airworthiness directives system. The regulation now includes material that relates to altered products, special flight permits, and AMOCs. However, for clarity and consistency in this final rule, we have retained the language of the proposed AD regarding that material.

## **Change in Labor Rate**

We have reviewed the figures we have used over the past several years to calculate AD costs to operators. To account for various inflationary costs in the airline industry, we find it necessary to increase the labor rate used in these calculations from \$60 per work hour to \$65 per work hour. The cost impact information, below, reflects this increase in the specified hourly labor rate.

## **Cost Impact**

This AD affects about 38 airplanes of U.S. registry. The FAA provides the following cost estimates for the actions specified in this AD:

## COST ESTIMATES

Action	Model/series	Work hours	Hourly labor rate	Parts cost	Cost per airplane
<b>Actions currently required by AD 98-25-51</b>					
Thrust reverser deactivation	All	2	\$65	\$0	\$130
AFM revision	All	1	65	0	65
<b>Modification (listed by Service Bulletin)</b>					
A310-78-2018	A310-222 and -322	1,439	65	53,400	146,935
A310-78-2019	A310-324 and -325	1,515	65	49,702	148,177
A310-78-2020	A310-221 and -222	1,273	65	51,088	133,833
A300-78-6017	A300 B4-620	823	65	51,215	104,710
A300-78-6018	A300 B4-622R	1,318	65	48,664	134,334
A300-78-6020	A300 B4-622	937	65	52,688	113,593

Operators should note that, if the actions specified in Pratt & Whitney Service Bulletins PW7R4 A78-179 and JT9D-7R4-A73-80 have not been previously accomplished, the total parts costs associated with the required modification could be as high as \$120,000 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

### Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

### List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

## **PART 39–AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. Section 39.13 is amended by removing amendment 39-10952 (63 FR 70637, December 22, 1998), and by adding a new airworthiness directive (AD), amendment 39-13726, to read as follows:

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "www.faa.gov"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2004-14-17 Airbus:** Amendment 39-13726. Docket 2002-NM-39-AD. Supersedes AD 98-25-51, Amendment 39-10952.

**Applicability:** The airplanes, certificated in any category, in the following table:

<b>Model—</b>	<b>Equipped with—</b>	<b>Except those modified in accordance with Airbus service bulletin—</b>	<b>Or modified in accordance with Airbus production modification—</b>
A300 B4-620	PWJT9D-7R4 series engines.	A300-78-6017, dated August 6, 2001	12261, 12264, and 12265.
A300 B4-622	PW4000 series engines.	A300-78-6020, dated August 10, 2001	12262, 12263, 12265, and 12377; or 12262, 12263, and 12266.
A300 B4-622R	PW4000 series engines.	A300-78-6018, dated July 17, 2001	12262, 12263, 12265, and 12377; or 12262, 12263, and 12266.
A310-221	PWJT9D-7R4 series engines.	A310-78-2020, dated June 1, 2001	12261, 12264, and 12265.
A310-222	PWJT9D-7R4 series engines.	A310-78-2020 or A310-78-2018, both dated June 1, 2001.	12261, 12264, and 12265.
Airbus Model A310-324 and -325.	PW4000 series engines.	A310-78-2019, dated May 2, 2001	12262, 12263, 12265, and 12377; or 12262, 12263, and 12266.

**Note 1:** This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d)(1) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

**Compliance:** Required as indicated, unless accomplished previously.

To prevent in-flight deployment of a thrust reverser, which could result in reduced controllability of the airplane, accomplish the following:

## Restatement of Requirements of AD 98-25-51

(a) Within the next 4 flight cycles after December 28, 1998 (the effective date of AD 98-25-51, amendment 39-10952), deactivate both thrust reversers in accordance with Airbus All Operators Telex (AOT) 78-08, dated November 30, 1998.

(b) Within the next 4 flight cycles after December 28, 1998, revise the Limitations Section of the Airplane Flight Manual (AFM) to include the following:

"The takeoff performance on wet and contaminated runways with thrust reversers deactivated shall be determined in accordance with Airbus Flight Operations Telex (FOT) 999.0124/98, dated November 30, 1998, as follows:

For takeoff on wet runways, use performance data in accordance with paragraph 4.1 of the FOT.

For takeoff on contaminated runways, use performance data in accordance with paragraph 4.2 of the FOT.

[**Note:** This supersedes any relief provided by the Master Minimum Equipment List (MMEL).]"

**Note 2:** The "FCOM" referenced in Airbus Flight Operations Telex (FOT) 999.0124/98, dated November 30, 1998, is Airbus Industrie Flight Crew Operating Manual (FCOM), Revision 27 for Airbus Model A310 series airplanes and Revision 22 for A300-600 series airplanes. (The revision number is indicated on the List of Effective Pages (LEP) of the FCOM.)

**Note 3:** FAA letter ANM-01-116-63, dated April 4, 2001, was issued to Airbus to allow reactivation of thrust reversers in accordance with Airbus AOT 78-09, Revision 3, dated June 29, 1999, if the stow-latching minimum-force check is done after the serialized selector solenoid valve is installed. Achievement of these conditions is considered an acceptable method of compliance for paragraphs (a) and (b) of this AD, and is available for use by all operators of all affected airplanes.

## New Requirements of This AD

### Modification

(c) Within 18 months after the effective date of this AD, install modifications related to an independent third line of defense on the thrust reversers, in accordance with the applicable service bulletin listed in Table 2 of this AD. The modifications involve retrofit of a new electrical circuit at four locations and installation of the synchronous shaft lock system and connection to the new electrical circuit. After the modifications have been installed, the thrust reversers may be reactivated, and the AFM limitation specified by paragraph (b) of this AD may be removed from the AFM. Table 2 follows:

**TABLE 2.—SERVICE INFORMATION FOR MODIFICATION**

<b>For Airbus model—</b>	<b>Equipped with model—</b>	<b>Install the modification in accordance with Airbus service bulletin—</b>
A300 B4–620 airplanes	PWJT9D–7R4 series engines	A300–78–6017, dated August 6, 2001.
A300 B4–622 airplanes	PW4000 series engines	A300–78–6020, dated August 10, 2001.
A300 B4–622R airplanes	PW4000 series engines	A300–78–6018, dated July 17, 2001.
A310–221 series airplanes	PWJT9D–7R4 series engines	A310–78–2020, dated June 1, 2001.
A310–222 series airplanes	PWJT9D–7R4 series engines	A310–78–2020 or A310–78–2018, both dated June 1, 2001.



A310–322 series airplanes	PWJT9D–7R4 series engines	A310–78–2018, dated June 1, 2001.
Airbus Model A310–324 and –325 series airplanes.	PW4000 series engines	A310–78–2019, dated May 2, 2001.

### Alternative Methods of Compliance

(d)(1) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

(2) Alternative methods of compliance, approved previously in accordance with AD 98-25-51, amendment 39-10952, are approved as alternative methods of compliance with the requirements of paragraphs (a) and (b) of this AD.

**Note 4:** Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

### Special Flight Permits

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

### Incorporation by Reference

(f) Unless otherwise specified in this AD, the actions must be done in accordance with the applicable service bulletin listed in Table 3 of this AD.

**TABLE 3.—SERVICE INFORMATION  
INCORPORATED BY REFERENCE**

<b>Service information</b>	<b>Date</b>
Airbus All Operators Telex 78–08	November 30, 1998.
Airbus Service Bulletin A300–78–6017	August 6, 2001.
Airbus Service Bulletin A300–78–6018	July 17, 2001.
Airbus Service Bulletin A300–78–6020	August 10, 2001.
Airbus Service Bulletin A310–78–2018	June 1, 2001.
Airbus Service Bulletin A310–78–2019	May 2, 2001.
Airbus Service Bulletin A310–78–2020	June 1, 2001.

(1) The incorporation by reference of the service information listed in Table 4 of this AD is approved by the Director of the Federal Register, in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

**TABLE 4.—NEW SERVICE INFORMATION**

<b>Service information</b>	<b>Date</b>
Airbus Service Bulletin A300–78–6017	August 6, 2001.
Airbus Service Bulletin A300–78–6018	July 17, 2001.
Airbus Service Bulletin A300–78–6020	August 10, 2001.
Airbus Service Bulletin A310–78–2018	June 1, 2001.
Airbus Service Bulletin A310–78–2019	May 2, 2001.
Airbus Service Bulletin A310–78–2020	June 1, 2001.

(2) The incorporation by reference of Airbus All Operators Telex 78-08, dated November 30, 1998, was approved previously by the Director of the Federal Register as of December 28, 1998 (63 FR 70637, December 22, 1998).

(3) Copies may be obtained from Airbus, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

**Note 5:** The subject of this AD is addressed in French airworthiness directive 2001-523(B), dated October 31, 2001.

**Effective Date**

(g) This amendment becomes effective on August 17, 2004.

Issued in Renton, Washington, on June 30, 2004.

Kalene C. Yanamura,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04-15514 Filed 7-12-04; 8:45 am]

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